



QUALCOMM Incorporated

2001 Pennsylvania Ave., NW ■ Suite 650 ■ Washington, DC 20006 ■ Tel: 202.263.0020

www.qualcomm.com

January 25, 2006

Via ECFS

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Ex Parte Presentation in WT Docket No. 05-7

Dear Ms. Dortch:

This letter responds to a January 12, 2006 *ex parte* presentation from MSTV, alleging that QUALCOMM's recent *ex parte* notices underestimate interference that would be caused to over-the-air television by MediaFLO and other 700 MHz licensees.¹ Prior to addressing MSTV's latest charges, which have no merit and are designed to delay this proceeding, a short review of the context for this filing is in order.

QUALCOMM's Petition for Declaratory Ruling

Over one year ago, QUALCOMM filed a Petition for Declaratory Ruling that the interference calculation procedures in the Office of Engineering and Technology Bulletin No. 69 ("OET-69") are acceptable to demonstrate compliance with Section 27.60 (b) (1) (iii) of the Commission's Rules. The Petition included an extensive and detailed engineering statement explaining how QUALCOMM proposes to use the OET-69 methodology, a methodology well known to the FCC and the broadcast industry, to assess the potential for interference to TV/DTV stations. QUALCOMM showed that, from an interference perspective, MediaFLO shares common characteristics with DTV—both are one-way, digital, noise-like signals that operate in a similar bandwidth, although MediaFLO operates at a lower power level than a full power DTV station. Thus, QUALCOMM argued that the OET-69 methodology is well suited to measure interference from MediaFLO to TV and DTV stations. To this day, MSTV and the other broadcast groups who have opposed the Petition have never suggested any alternative methodology that QUALCOMM should use instead of OET-69.

QUALCOMM also argued that the FCC should allow QUALCOMM to file engineering studies under Section 27.60 (b) (1) (iii) "justifying the proposed separations" between MediaFLO's transmitters and co- and adjacent channel TV/DTV stations with an interference limit of up to 2% of a station's service area population, the same standard for *de minimis* interference that governs DTV stations on the very same spectrum. QUALCOMM

¹ MSTV refers to three recent *ex parte* notices that QUALCOMM filed in this docket on November 16 and December 7 and 16, 2005.

pointed out that this *de minimis* interference will be temporary, until the DTV transition ends, now to be February 17, 2009, under legislation passed by the House and Senate. QUALCOMM showed that because the Part 27 D/U ratios, which govern MediaFLO's operations, are over 17 dB more stringent than the Part 73 D/U ratios, grant of QUALCOMM's Petition would actually provide more protection for TV/DTV stations than they receive under the Part 73 rules. QUALCOMM explained that it would seek FCC approval of its proposed transmitters using the OET-69 methodology only in a subset of markets across the country.

The Petition included an engineering statement that contains three case studies—engineering analyses which demonstrated QUALCOMM's proposed use of the OET-69 methodology in three sample markets. QUALCOMM stated that prior to going on the air in a given market by using the OET-69 methodology to come within the *de minimis* interference standard, it would file a similar engineering study and serve the study on any affected TV/DTV station. While opposing the Petition, and filing engineering statements of their own, MSTV and other broadcast groups did not claim that they did not understand the OET-69 methodology, as used in the three case studies, and they did not demand that QUALCOMM provide any additional information.

This proceeding has been ripe for ruling since March 25, 2005, when reply comments were filed. Since then, QUALCOMM has made great progress toward the anticipated launch of MediaFLO in the third quarter of 2006. On December 1, 2005, QUALCOMM announced an agreement with Verizon Wireless to offer MediaFLO to its subscribers. In January 2006, QUALCOMM conducted live over the air demonstration of MediaFLO on Samsung and LG mobile phones at the 2006 International Consumer Electronics Show. QUALCOMM has also entered into tower lease agreements and has begun deployment of equipment in markets where TV stations are not operating. But, all of this progress hangs in the balance until the FCC rules on QUALCOMM's Petition. Until then, QUALCOMM does not know if the OET-69 methodology is acceptable, what level of interference will be permitted, and how the FCC will process these studies. QUALCOMM respectfully asks once again for a ruling as soon as possible.

In this context, MSTV's filing and accompanying litigation-type discovery demand are apparent for what they are—another tactic to obstruct and delay the FCC from issuing a ruling that will permit QUALCOMM to get on the air. QUALCOMM asks the FCC not to take this bait and instead to issue a ruling expeditiously.

The Unfounded Allegations in MSTV's January 12, 2006 Letter

MSTV begins by charging that QUALCOMM's recent *ex parte* presentations “drastically underestimate” the interference that it and other 700 MHz licensees would cause. The recent *ex parte* presentations to which MSTV is referring were provided by QUALCOMM in response to requests from the Commission for an estimate of the number of markets in which QUALCOMM intends to use the OET-69 methodology to come within the proposed two percent *de minimis* interference standard, the number of instances in which QUALCOMM will contend the interference would be less than two percent, and, as QUALCOMM understood it, for a “real world” estimate of the interference from the filings that QUALCOMM

anticipates it will make. These “real world” estimates would not be included in any OET-69 engineering study filed by QUALCOMM and, thus, would not be a basis for the Commission to decide whether QUALCOMM can go on the air in any market. There are no underestimates.

MSTV argues that the consequences of multiple 700 MHz licensees operating nationwide under “lax” interference standards advocated by QUALCOMM “would surely run into the millions.”² MSTV’s only basis for this speculation is its statement that parties to the proceeding have demonstrated that MediaFLO would interfere with 122,000 viewers in one market alone. *Id.* This is an apparent reference to an engineering statement submitted by Cox Broadcasting which simply stated that two percent of the service area of KTVU-DT, the Cox DTV station in Oakland, CA, is 122,144 people.³ QUALCOMM will not be filing an engineering study based on OET-69 in KTVU’s market pursuant to Section 27.60 (b) (1) (iii) because QUALCOMM will not be able to limit its interference to 2% there. To provide service in the Oakland area, QUALCOMM will either have to reach an agreement with Cox or await the conclusion of the DTV transition. In any event, there is no basis to conclude that 122,000 people would lose access to KTVU-DT if QUALCOMM sought to apply the 2% test in KTVU-DT’s market and, thus, no basis at all to suggest that MediaFLO will interfere with millions of viewers. Cable and satellite penetration in KTVU-DT’s market is 88.9%.⁴ Cohen, Dippell states that KTVU-DT cannot rely on cable operators to carry their full digital signal in view of the Commission’s decision in the multicast must-carry proceeding. QUALCOMM cannot be charged with the outcome of that other proceeding, which apparently some broadcasters do not like. Today, people can watch KTVU (TV) on cable; after the transition, they will be able to watch whatever portion of KTVU-DT’s signal the Commission requires to be carried.

We now turn to MSTV’s specific and equally meritless allegations:

Alleged Failure to Analyze Interference throughout 700 MHz Band. MSTV argues that QUALCOMM ignores the interference that would be caused by other 700 MHz licensees if the FCC grants QUALCOMM’s Petition. Although QUALCOMM’s Petition did ask that the Commission allow up to 2% interference for QUALCOMM and other 700 MHz licensees, the Petition also said merely that it is “possible” that other 700 MHz licensees can use the OET-69 methodology.⁵ No other 700 MHz licensee has announced plans for a nationwide or regional service.⁶ No other 700 MHz licensee has announced plans to use signal characteristics, like MediaFLO’s, which are similar to those of the DTV signal. No other 700 MHz licensee has

² MSTV Letter at Pg. 1.

³ Engineering Statement of Cohen, Dippell & Everist (filed by Cox Broadcasting on March 10, 2005) at Pg. 4.

⁴ www.tvb.org/rcentral/markettrack/Cable_and_ADS_Penetration_by_DMA.asp.

⁵ QUALCOMM Petition at Pg. 2, n.2.

⁶ Aloha Partners has announced a demonstration of wireless technology for the Phoenix, Arizona Fire Department and Bureau for Homeland Defense in Phoenix. *See* Press Release (Oct. 12, 2005), <http://www.lucent.com/press/1005/051012.coa.html>.

announced plans to start commercial service in a major market other than QUALCOMM. There is no basis to quantify an amount of interference from licensees who have not even announced plans to launch any service. MSTV is faulting QUALCOMM for not making things up.

Alleged Inappropriate Disregard of Cable and Satellite Households. MSTV claims that it is “fatal” to QUALCOMM’s interference estimates that they intentionally disregard households that subscribe to cable and satellite service.⁷ QUALCOMM hereby clarifies that these households will *not* be disregarded in calculating the interference in the engineering studies that QUALCOMM will submit upon a grant of its Petition. The sample engineering studies submitted with QUALCOMM’s Petition simply applied the OET-69 methodology to calculate the over-the-air interference in each market to ensure that it was below 2% and did not consider cable and satellite penetration. The question addressed by QUALCOMM in its *ex parte* filings was whether, in the “real world,” all of these people would actually suffer interference, and the undeniable answer is no. People who do not watch the station in question or people who do watch it, but over cable and satellite will not suffer interference.

MSTV points to a GAO study, which estimated that over ten million cable households have at least one TV set used that receives only over the air signals.⁸ But, the GAO did not present any data on how many of these sets are actually used to watch television as opposed to being used to watch VCR tapes or DVDs or to play video games. By contrast, the Consumer Electronics Association (“CEA”) research shows that of the 173.3 million sets in cable homes, only 4.4 million (or 2.3%) are used to watch over the air broadcasts.⁹ MSTV’s answer to CEA’s research is to cite comments filed by the Association of Public Television Stations which simply list parts of a house where TV sets are used, without addressing how they are used.¹⁰ This is not data or research of any kind, and it is no basis upon which to disparage QUALCOMM’s filings.

In the same vein, MSTV cites the plight of KCSM (TV) of San Mateo, California, a noncommercial station that lost 38 percent of its audience when it turned off its analog transmitter, in a market with 89 percent cable and satellite penetration.¹¹ The very presentation that MSTV cites notes that the station had no advertising budget and that after the analog station was shut down, there was continued confusion over the digital station’s channel assignment on cable and satellite systems. The presentation suggests that the station lost

⁷ MSTV Letter at Pg. 2.

⁸ *Id.* See also *Estimated Cost of Supporting Set-Top Boxes to Help Advance the DTV Transition: Testimony Before the Subcommittee of Telecommunications and the Internet, Committee on Energy and Commerce, U.S. House of Representatives*, Statement of Mark L. Goldstein, Director, Physical Infrastructure Issues, GAO at 8 (Feb. 17, 2005).

⁹ See Comments of the Consumer Electronics Association, Docket MB-255 (September 19, 2005) at Pg. 7.

¹⁰ See Comments of the Association of Public Television Stations, MB Docket No. 04-210 at 10 (Sept. 4, 2004).

¹¹ MSTV Letter at Pg. 3.

viewers who could not locate the station on cable or satellite after the analog shut down. This is no basis to criticize QUALCOMM's *ex parte* letters.

MSTV argues that QUALCOMM's methodology would deprive all affected cable and satellite households of the ability to cancel their pay service and receive out-of-core television services solely over-the-air. This is another unfounded charge. QUALCOMM's methodology would not do any such thing. If QUALCOMM's Petition is granted, QUALCOMM will file engineering studies based on OET-69 in a limited number of markets. In those markets, QUALCOMM will show that it would not interfere with the ability of more than 2% of the population covered by a particular TV/DTV station to watch that station. There will be no estimate of cable/satellite households, just as the three sample studies attached to QUALCOMM's Petition did not include any such estimate. On the other hand, in estimating the "real world" impact of such filings, QUALCOMM excluded the percentage of the population who subscribe to cable and satellite and who do not watch the station in question. QUALCOMM did so with the best data that it had. MSTV offers no data on the number of people who are dropping cable and satellite and opting to watch over-the-air instead. To the contrary, the available data shows that cable and satellite penetration is growing, not declining. The FCC's 2005 Video Competition Report found that while cable and satellite penetration rose from June 2003 to June 2004, from 89.8 million households to 92.3 million households.¹² There is simply no basis for MSTV's argument.

Finally, MSTV claims that QUALCOMM's analysis fails to consider interference to cable headends, which will potentially deprive cable viewers of access to out-of-core television stations.¹³ QUALCOMM addressed this very issue in its Reply Comments, filed on March 25, 2005, wherein it stated: "QUALCOMM recognizes that continued carriage on cable systems is critical for all broadcast stations and is willing to work with the impacted stations on an individual basis to identify and resolve problems that arise from QUALCOMM's MediaFLO operations to ensure that cable headends are able to retransmit the TV/DTV signals."¹⁴ MSTV ignored QUALCOMM's filing and rehashed this argument in an apparent effort to delay and obstruct this proceeding.

Alleged Use of Irrelevant Audience Share Data. MSTV objects to QUALCOMM's *ex parte* filings, which reflected calculations of the number of people who would be impacted by QUALCOMM's use of OET-69 in particular markets by using ratings to count the number of people who watch a particular station. Once again, MSTV distorts QUALCOMM's position when MSTV says that QUALCOMM is trying to prevent viewers from accessing free, over-the-air stations based on stations' ratings data.¹⁵ QUALCOMM is doing no such thing. In its sample engineering studies attached to its Petition, QUALCOMM did not use ratings data, and QUALCOMM does not propose to do when its Petition is granted. Once again, the question

¹² See *Annual Assessment of the Status of Competition in the Market for Delivery of Video Programming*, 20 FCC Rcd 2755, 2759 (2005).

¹³ MSTV Letter at 3.

¹⁴ QUALCOMM Reply Comments (filed March 25, 2005) at Pg. 16.

¹⁵ MSTV Letter at Pg. 3

addressed in the *ex parte* filings was, in the “real world,” how many people would actually be affected by the interference of up to 2% shown in QUALCOMM’s engineering studies. Surely, it cannot be gainsaid that someone who does not watch the station in question will not be affected by interference to that station. For that reason, in QUALCOMM’s *ex parte* notices, QUALCOMM used ratings data to estimate the number of people who will actually be affected by a grant of QUALCOMM’s Petition, as opposed to being theoretically affected because they reside in an area predicted to receive interference. The best data available to QUALCOMM to make such an estimate was the overall cable and satellite penetration in a given market in which an affected station is located, as well as the average rating of each affected station. QUALCOMM did not have access to the actual over-the-air ratings of each affected station, but MSTV does not offer any data to quantify the difference between using overall cable and satellite penetration in a market and the overall rating of a station as opposed to using over-the-air ratings.

It remains the case that QUALCOMM’s analyses were quite conservative and, if anything, overstated the number of households who will actually be affected by a grant of QUALCOMM’s Petition. For example, digital stations do not have any ratings at this time. Yet, QUALCOMM assigned a rating to each digital station equal to the rating of its sister analog station. In the case of an analog station that was unrated or had a rating of zero, QUALCOMM used a rating of 3.25, the average rating for all analog stations considered.

Alleged Failure to Evaluate Transmitter Placement. MSTV faults QUALCOMM for overlooking the location of transmitters in its analyses.¹⁶ MSTV says that if QUALCOMM’s transmitter is placed in a neighborhood with disproportionately high over-the-air viewership, the harm from QUALCOMM’s proposal to that community will be greater to the average community.¹⁷ Unfortunately, there is no block-by-block or even city-by-city data available on cable and satellite penetration, and so the Commission could not possibly determine the number of people who watch TV over the air in a particular neighborhood within some distance of QUALCOMM’s transmitter. MSTV is attempting to persuade the Commission to hold QUALCOMM to an impossibly high standard in evaluating QUALCOMM’s filings. The Commission should reject this effort.¹⁸

Reliance on Allegedly Flawed OET-69 Methodology. In conclusory fashion, MSTV repeats its prior allegation that OET-69 is inapplicable to QUALCOMM.¹⁹ In rehashing this argument, MSTV does not offer the Commission anything new, and QUALCOMM has shown in this

¹⁶ MSTV Letter at Pg. 4.

¹⁷ *Id.*

¹⁸ MSTV does cite a filing from Pappas Southern California, LLC which submitted data from Nielsen purporting to show that 45.5 percent of Hispanic households in Los Angeles rely exclusively on over-the-air television. MSTV Letter at Pg. 4. There is no legal basis for the Commission to evaluate QUALCOMM’s Petition based on the ethnicity, race, or religion of the people who could be affected. For that reason, QUALCOMM is not submitting data on the large number of Hispanic Americans who subscribe to wireless services and are therefore in the target market for MediaFLO.

¹⁹ MSTV Letter at Pgs. 4-5.

proceeding that OET-69 is actually well suited to quantify MediaFLO to TV/DTV interference since like the ATSC DTV waveform, MediaFLO is also a one way, digital, noise-like technology that occupies a 5.5 to 6 MHz bandwidth.²⁰ Try as it might, MSTV can never avoid these stubborn facts, which undermine MSTV's argument.

MSTV does cite – and misconstrue- a snippet from a filing by Flarion Technologies.²¹ The concern that Flarion addressed in its comments had nothing to do with using OET-69 to measure interference from MediaFLO to TV/DTV stations. Rather, Flarion was concerned about whether OET-69 would accurately measure interference from MediaFLO to the services provided by other 700 MHz licensees on adjacent channels, which Flarion speculated are likely to involve more of a cellular design with low towers as opposed to MediaFLO, which is more likely to use taller towers.²² As Flarion put it, “the use of a contour methodology such as OET-69 may be sufficient to protect broadcasters but not other Part 27 licensees.” This concern had no merit because protection to adjacent Part 27 licensees is dealt with in a rule not at issue in QUALCOMM's Petition, 47 C.F.R. Sec. 27.53 (f), and, QUALCOMM has never proposed the use of OET-69 to determine if other Part 27 licensees are adequately protected.²³ MSTV is way off base.

Allegedly Exaggerated Claims of MediaFLO's Likely Subscribership. MSTV faults QUALCOMM for promising that if QUALCOMM's Petition is granted, it will deliver MediaFLO to 200 million people.²⁴ QUALCOMM believes that the Commission and its staff will understand that the reference was to the total addressable market of U.S. wireless subscribers to whom QUALCOMM hopes to offer MediaFLO, not to the portion who will subscribe to the service. Further, MSTV quotes an analyst who speculates about the price of MediaFLO phones. This is an odd argument for MSTV to make, given the high prices consumers have to pay to buy DTV-capable sets. The fact is that QUALCOMM has consistently said that the MediaFLO service will be sold at affordable, mass market prices. When a new wireless service is launched, it typically begins with higher end handsets in the very early stages, but within a relatively short period of time, middle and low end handsets become available. MediaFLO will be a mass market service, and there is no basis for any suggestion to the contrary.

MSTV says that QUALCOMM will face “intense competition in the mobile marketplace,” and they point to the MobiTV service.²⁵ QUALCOMM agrees that it will face

²⁰ QUALCOMM Petition at Pgs. 14-15; QUALCOMM Reply at Pgs. 8-9.

²¹ MSTV Letter at Pgs. 4-5.

²² See Flarion Comments at Pg. 1 (“granting this request may have the unintended effect of increasing the risk of interference to Part 27 licensees.”)

²³ We note that Flarion, which QUALCOMM recently acquired, has withdrawn its comments. See Ex Parte Notice of Withdrawal of Comments of Flarion Technologies, Inc. (filed January 24, 2006). Other 700 MHz licensees filed comments supporting QUALCOMM's Petition.

²⁴ MSTV Letter at Pg. 5.

²⁵ MSTV Letter at Pg. 5.

competition, and this is an important reason for the Commission to rule expeditiously on QUALCOMM's Petition. QUALCOMM believes that the FLO technology, which it designed from the ground up to deliver mobile video, audio, and data services, will enable the provision of these services at the lowest cost and the highest quality. But, MediaFLO cannot be delivered to many important markets around the country unless and until the Commission grants QUALCOMM's Petition.

Alleged Sacrifice of Free Service to Benefit Pay Service. MSTV repeats an argument from its prior pleadings when it says that the Commission should not favor users able to pay for content over those relying on free, over-the-air television. MSTV wants the Commission to ignore reality: most people watch television via cable and satellite and, therefore, would not be adversely affected by a grant of QUALCOMM's Petition, and most Americans subscribe to a wireless phone service and, therefore, are within the group of people who may wish to subscribe to MediaFLO. In the 1960's, when cable television was in its infancy, the Commission faced a choice between protecting the free over-the-air television that most Americans enjoyed or facilitating the initiation of pay services that were in their infancy. That is not the situation the Commission confronts today. Instead, the issue is should the Commission permit a *de minimis* level of interference to over-the-air viewing of a limited number of television stations in a limited number of markets for a limited period of time in order to permit QUALCOMM to launch an innovative wireless service that will be offered in conjunction with wireless phone service that most Americans already enjoy. QUALCOMM submits the public interest calculus strongly favors a grant of its Petition.

Alleged Hiding of the Ball. Finally, in its last effort to impede the end of this proceeding, MSTV complains that QUALCOMM has not filed factual and legal data on which it bases its conclusions. MSTV also complains that QUALCOMM's parameters in its *ex parte* filings are "ever-shifting and vaguely defined."²⁶ This complaint is unfounded. QUALCOMM's Petition contained an extensive engineering statement and three case studies showing how it proposes to use the OET-69 methodology. MSTV has never claimed not to understand QUALCOMM's methodology despite having the opportunity to do so in filed comments and reply comments with engineering statements of its own. QUALCOMM has not changed its proposed methodology throughout this proceeding.

Moreover, there is no basis for MSTV's claim that QUALCOMM, which has filed unusually extensive and detailed *ex parte* notices over and above what the Commission's rules require, has hidden any ball. The purpose of QUALCOMM's *ex parte* filings was to respond to requests for information by showing that, first, QUALCOMM will only need to avail itself of the OET-69 methodology and proposed 2% test in a subset of markets across the country; second, that in many of these markets, QUALCOMM expects to propose levels of interference much lower than the full 2%; and, third, although QUALCOMM's filings will show the total number of people who would theoretically suffer interference when watching a station over the air, the actual number of people who will suffer interference will be much less since most people do not watch television over the air and most people do not watch the

²⁶ *Id.*

particular station in question. The *ex parte* notices bear out these points for both a target 30 markets and a target 125 markets. No ball is being hidden.²⁷

There is no need for the invasive, litigation-type discovery demanded by MSTV and intended to prolong this proceeding. QUALCOMM's Petition clearly describes its proposal, and MSTV has never suggested to the contrary. The Commission has placed the matter on public notice, and public safety groups, wireless firms, and broadcasters have all filed comments. QUALCOMM does not believe that there is any need for the filing of additional engineering studies. Upon a grant of the Petition, QUALCOMM will file a study for each market in which it seeks to rely on the OET-69 methodology in filings made pursuant to Section 27.60 (b) (1) (iii) of the Rules, and QUALCOMM will serve a copy on the affected TV/DTV station, which will have an opportunity to make a responsive filing. These studies will use the same methodology as the three sample studies attached to QUALCOMM's Petition. At this juncture, any filing with information of the type demanded by MSTV, much of which is confidential at this time, is inappropriate and unnecessary. QUALCOMM believes that the information in its Petition is more than adequate for issuance of a prompt ruling.

Conclusion

QUALCOMM asks that the Commission not be diverted by MSTV's latest letter and instead issue a ruling in this matter as soon as possible to permit QUALCOMM to deliver the benefits of the innovative and worthwhile MediaFLO service around the country.

Respectfully submitted,

/s/ Dean R. Brenner

Dean R. Brenner
Vice President, Government Affairs

Cc: Catherine Bohigian
Fred Campbell
Heather Dixon
John Giusti
Barry Ohlson

²⁷ It is true that in its December 7, 2005, QUALCOMM referred to 26 stations in the target 30 markets and in its December 16, 2005 filing, QUALCOMM corrected a mistake and stated that the number was 22 stations. This correction is not "hiding the ball."